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EXAMINER

DU, THUAN N

ART UNIT

PAPER NUMBER

2116

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/802,348

Applicant(s)

HERSHENSON ET AL.

Examiner

Thuan N. Du

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment A (dated 6/14/04).
2. Claims 10 and 20 have been cancelled. Claims 1-9 and 11-19 are presented for examination. The rejection are respectfully maintained and reproduced infra for applicant's conveniences.

Claim Rejections - 35 USC § 101

4. Claims 18-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Since a computer readable-medium encoded with the program code has not been claimed, the computer code as claimed is computer listing per se (see MPEP 2106). Therefore, the claimed computer code does not define any structural and functional interrelationships between the computer code and other claimed elements of a computer which permits the computer code's functionality to be realized.
5. To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (non-statutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories on invention.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4, 6, 8, 9, 11, 13, 15, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gladstein et al. [Gladstein] (U.S. Patent No. 5,349,668) in view of Teitelbaum et al. [Teitelbaum] (U.S. Patent No. 5,848,231).

8. **Regarding claim 1**, Gladstein teaches a method for preserving data on a portable apparatus (digitizer tablet computer 10) having a limited power source (battery 74) comprising the steps of:

detecting that power available in said power source has reached a first threshold value [abstract, lines 4, 8-9; col. 2, lines 4-15; col. 7, lines 44-47; col. 12, lines 5-12]; and

saving data stored in volatile memory on said portable apparatus responsive to said first threshold value being reached [col. 2, lines 8-17; col. 12, lines 12-13, 22-23].

Gladstein teaches the data is saved in a non-volatile memory but does not explicitly teach that the data is saved on a remote server.

Teitelbaum teaches a method for preserving data including the step of saving data to a remote server (file server) in the event that failure of the workstation occurs to minimize the loss of data [col. 15, lines 24-25, 28-29].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gladstein and Teitelbaum because they both teach method for preserving data on a computer system. Teitelbaum's teaching of saving the data to a remote server would enhance Gladstein's system by allowing not only the memory space of the non-

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volatile memory in the computer system can be saved but also the loss of data in the event that failure of the computer system occurs can be minimized.

9. **Regarding claim 2**, both Gladstein and Teitelbaum do not explicitly teach the step of warning the user that any subsequent data has a risk of being lost.

Gladstein teaches a warning signal is provided to the user to save the volatile data when the power level of the battery reaches the predetermined value. Therefore, it would have been obvious to one of ordinary skill in the art to recognize that the current data will have a risk of being lost if the data is not saved. As such, any subsequent data enter into the volatile memory will have the same risk when the warning signal has provided.

10. **Regarding claim 3**, both Gladstein and Teitelbaum do not explicitly teach the step of sending a battery to a user when a second threshold value has reached.

Gladstein teaches the battery is disconnected immediately when a second threshold has reached. The second threshold taught by Gladstein indicates the battery is fully depleted. Therefore, one of ordinary skill in the art would have recognized that recharging or replacing the battery is needed in order to bring the computer system back to a normal operation. In the event that the battery needs to be replaced, it would have been obvious for the user to order a new battery to be sent to the user's location for the user's convenience.

11. **Regarding claim 4**, Gladstein teaches that the second threshold value (5.0 volts) is less than said first threshold value (5.50 volts) [col. 7, lines 45-47, 51-53; col. 12, lines 17-18].

12. **Regarding claim 6**, Gladstein teaches that all data stored in volatile memory is saved [col. 2, lines 15-16; col. 12, lines 22-23].

Gladstein teaches the data is saved in a non-volatile memory but does not explicitly teach that the data is saved on a server.

Teitelbaum teaches a method for preserving data including the step of saving data to a server in the event that failure of the workstation occurs to minimize the loss of data [col. 15, lines 24-25, 28-29].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gladstein and Teitelbaum because they both teach method for preserving data on a computer system. Teitelbaum's teaching of saving the data to a server would enhance Gladstein's system by allowing not only the memory space of the non-volatile memory in the computer system can be saved but also the loss of data in the event that failure of the computer system occurs can be minimized.

13. **Regarding claims 8, 9, 11, 13, 15 and 16**, Gladstein and Teitelbaum together teach the claimed method steps. Therefore, Gladstein and Teitelbaum together teach the apparatus to implement the claimed method steps.

14. **Regarding claims 18 and 19**, Gladstein and Teitelbaum together teach the claimed method steps. Therefore, Gladstein and Teitelbaum together teach the program code for carrying out the claimed method steps.

15. Claims 5, 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gladstein et al. [Gladstein] (U.S. Patent No. 5,349,668) in view of Teitelbaum et al. [Teitelbaum] (U.S. Patent No. 5,848,231) as applied to claims 1, 8 and 15 above, and further in view of Harwell et al. [Harwell] (U.S. Patent No. 5,396,637).

16. **Regarding claim 5**, both Gladstein and Teitelbaum do not explicitly teach the step of restoring the data to the portable apparatus after said power supply rises above the threshold value.

Harwell teaches that the content of a volatile memory (RAMs 26, 28) is stored in a non-volatile memory (disk drives 34, 36) when the voltage level falls below a predetermined threshold value [col. 3, lines 20-29]. Thereafter, the content of the volatile memory is restored back into the volatile memory from a non-volatile memory upon a subsequent power up [abstract; col. 3, lines 37-42]. To detect the subsequent power up, Harwell obviously uses the same threshold value to determine whether the voltage rises above the threshold value.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gladstein-Teitelbaum and Harwell because they all teach method for preserving data. Harwell's teaching of automatically restoring the data to the volatile memory upon subsequent power up would increase the productivity of the user because the user can continue his/her work at the point just prior to the battery being depleted.

17. **Regarding claims 12 and 17**, Gladstein, Teitelbaum and Harwell together teach the claimed method steps. Therefore, Gladstein, Teitelbaum and Harwell together teach the apparatus to implement the claimed method steps.

18. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gladstein et al. [Gladstein] (U.S. Patent No. 5,349,668) in view of Teitelbaum et al. [Teitelbaum] (U.S. Patent No. 5,848,231) as applied to claims 1 and 8 above, and further in view of Inomata et al. [Inomata] (U.S. Patent No. 5,438,679).

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19. **Regarding claim 7**, Gladstein teaches that all data stored in volatile memory is saved [col. 2, lines 15-16; col. 12, lines 22-23].

Gladstein teaches the data is saved in a non-volatile memory but does not explicitly teach that the data is saved on a server.

Teitelbaum teaches a method for preserving data including the step of saving data to a server in the event that failure of the workstation occurs to minimize the loss of data [col. 15, lines 24-25, 28-29].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gladstein and Teitelbaum because they both teach method for preserving data on a computer system. Teitelbaum's teaching of saving the data to a server would enhance Gladstein's system by allowing not only the memory space of the non-volatile memory in the computer system can be saved but also the loss of data in the event that failure of the computer system occurs can be minimized.

Gladstein-Teitelbaum does not explicitly teach only unrecoverable data is saved.

Inomata teaches a method for saving data upon power failure occurs in which only necessary data is saved [col. 1, lines 38-47]. One of ordinary skill in the art would have recognized that necessary data is important data which is not recoverable or very hard to recover when it is being lost.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gladstein-Teitelbaum and Inomata because they all teach method for preserving data upon power lost is detected. Inomata's teaching of saving

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only necessary data would desirably reduce the memory usage and power consumption to perform the saving operation task of Gladstein-Teitelbaum's system.

20. **Regarding claim 14**, Gladstein, Teitelbaum and Inomata together teach the claimed method steps. Therefore, Gladstein, Teitelbaum and Inomata together teach the apparatus to implement the claimed method steps.

Response to Argument

21. Applicant's arguments filed June 14, 2004 have been fully considered but they are not persuasive.

22. In the remarks, applicants argued in substances that a) claim 18 is statutory irrespective of the fact that program code is included in the claim; and b) neither Gladstein nor Teitelbaum nor the combination thereof discloses or suggests storing data in a volatile memory to a remote server.

a. "(A)n article of manufacture including program code," recited in claim 18, makes the claim to be a non-statutory claim. Applicants argued that the "article of manufacture" is a machine-readable media, computer-readable media, a floppy disk or an optical disk. Those medias have not been claimed. Examiner takes a position that the "article of manufacture" could also be, for example, a piece of paper. "(A)n article of manufacture including program code" could be program code written on a piece of paper. As such, program code written on a piece of paper will not be able to cause a "machine" to perform the operations as claimed. Therefore, claim 18 is non-statutory.

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b. Examiner agrees with applicants that neither Gladstein nor Teitelbaum discloses or suggests storing data in a volatile memory to a remote server. However, the combination (Gladstein in view of Teitelbaum) results in the claimed invention. Applicants admitted that Gladstein teaches that the data stored in volatile memory is saved (upon low power is detected) [Remarks, p. 10, lines 2-3 of paragraph 2], and Teitelbaum teaches that system data is saved in a file server (locate remotely from the client system) [Remarks, p. 10, line 4 of paragraph 2]. Therefore, it would have been obvious to those of ordinary skill in the art at the time of the invention to modify the teachings of Gladstein to save the data stored in volatile memory to a file server remotely located as taught by Teitelbaum. The modification would enhance Gladstein's system by allowing not only the memory space of the non-volatile memory in the computer system can be saved but also the loss of data in the event that failure of the computer system occurs can be minimized.

In response to applicants' argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves *or in the knowledge generally available to one of ordinary skill in the art* (emphasis added). See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuan N. Du whose telephone number is (703) 308-6292. The examiner can normally be reached on Monday-Friday: 9:00 AM - 5:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (703) 305-9717.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

The fax number for the organization is (703) 872-9306.


LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600 2/00

Thuan N. Du
September 1, 2004